

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code		NPDES										yr/mo/day					Inspection Type		Inspector		Fac Type	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Remarks																						
21																						
Inspection Work Days		Facility Self-Monitoring Evaluation Rating										BI		QA		Reserved						
67	68	69	70	71	72	73	74	75	76	77	78	79	80									

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) New York State Department of Transportation - Region 9 44 Hawley Street Binghamton, NY 13901	Entry Time/Date 6/19/2012 Exit Time/Date 6/21/2012	Permit Effective Date 5/1/2010 Permit Expiration Date 4/30/2015
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Steve Cammissa, Environmental Specialist Larry Cutting, Construction Environmental Coordinator Pam Eshbaugh, Regional Planning & Program Manager Dave Graves, Statewide Stormwater Program Coordinator Mike Huff, Engineering Technician Mitch Sosnicki, Design Environmental Specialist Andy Stiles, Regional Director of Operations	Other Facility Data (e.g., SIC NAICS, and other descriptive information)	
Name, Address of Responsible Official/Title/Phone and Fax Number Joan McDonald, Commissioner (518) 457-6195	Contacted <input checked="checked" type="checkbox"/> Yes <input type="checkbox"/> No	

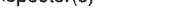

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input type="checkbox"/>	Permit	<input type="checkbox"/>	Self-Monitoring Program	<input type="checkbox"/>	Pretreatment	<input checked="" type="checkbox"/>	MS4
<input type="checkbox"/>	Records/Reports	<input type="checkbox"/>	Compliance Schedules	<input type="checkbox"/>	Pollution Prevention		
<input type="checkbox"/>	Facility Site Review	<input type="checkbox"/>	Laboratory	<input type="checkbox"/>	Storm Water		
<input type="checkbox"/>	Effluent/Receiving Waters	<input type="checkbox"/>	Operations & Maintenance	<input type="checkbox"/>	Combined Sewer Overflow		
<input type="checkbox"/>	Flow Measurement	<input type="checkbox"/>	Sludge Handling/Disposal	<input type="checkbox"/>	Sanitary Sewer Overflow		

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	See attached MS4 audit report
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Name(s) and Signature(s) of Inspector(s) Christy Arvizu 	Agency/Office/Phone and Fax Numbers 212-637-3961	Date 2/11/2014
Signature of Management Q A Reviewer 	Agency/Office/Phone and Fax Numbers	Date 2/12/14

INSTRUCTIONS

Section A: National Data System Coding (i.e., PCS)

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number - third character in permit number indicates permit type for U=unpermitted, G=general permit, etc.. (Use the Remarks columns to record the State permit number, if necessary.)

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

Column 18: Inspection Type*. Use one of the codes listed below to describe the type of inspection:

A	Performance Audit	U	IU Inspection with Pretreatment Audit	I	Pretreatment Compliance (Oversight)
B	Compliance Biomonitoring	X	Toxics Inspection	@	Follow-up (enforcement)
C	Compliance Evaluation (non-sampling)	Z	Sludge - Biosolids	{	Storm Water-Construction-Sampling
D	Diagnostic	#	Combined Sewer Overflow-Sampling	}	Storm Water-Construction-Non-Sampling
F	Pretreatment (Follow-up)	\$	Combined Sewer Overflow-Non-Sampling	:	Storm Water-Non-Construction-Sampling
G	Pretreatment (Audit)	+	Sanitary Sewer Overflow-Sampling	~	Storm Water-Non-Construction-Non-Sampling
I	Industrial User (IU) Inspection	&	Sanitary Sewer Overflow-Non-Sampling	<	Storm Water-MS4-Sampling
J	Complaints	\	CAFO-Sampling	-	Storm Water-MS4-Non-Sampling
M	Multimedia	=	CAFO-Non-Sampling	>	Storm Water-MS4-Audit
N	Spill	2	IU Sampling Inspection		
O	Compliance Evaluation (Oversight)	3	IU Non-Sampling Inspection		
P	Pretreatment Compliance Inspection	4	IU Toxics Inspection		
R	Reconnaissance	5	IU Sampling Inspection with Pretreatment		
S	Compliance Sampling	6	IU Non-Sampling Inspection with Pretreatment		
		7	IU Toxics with Pretreatment		

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

A --- State (Contractor)	O --- Other Inspectors, Federal/EPA (Specify in Remarks columns)
B --- EPA (Contractor)	P --- Other Inspectors, State (Specify in Remarks columns)
E --- Corps of Engineers	R --- EPA Regional Inspector
J --- Joint EPA/State Inspectors—EPA Lead	S --- State Inspector
L --- Local Health Department (State)	T --- Joint State/EPA Inspectors—State lead
N --- NEIC Inspectors	

Column 20: Facility Type. Use one of the codes below to describe the facility.

- 1 --- Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
- 2 --- Industrial. Other than municipal, agricultural, and Federal facilities.
- 3 --- Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
- 4 --- Federal. Facilities identified as Federal by the EPA Regional Office.
- 5 --- Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K: CAFO, V: SSO, Y: CSO, W: Storm Water 9: MS4. States may also use the new wet weather, CAFO and MS4 inspections types shown in column 18 of this form. The EPA regions are required to use the new wet weather, CAFO, and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.



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Washington, DC 20460

U.S. Environmental Protection Agency, Region 2
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**MUNICIPAL SEPARATE STORM
SEWER SYSTEM (MS4)
COMPLIANCE AUDIT**

**NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
REGION 9**

AUDIT REPORT

**Audit Dates:
June 19–21, 2012**

**Report Date:
January 30, 2013**

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Section 1.0 Introduction

On June 19-21, 2012, the U.S. Environmental Protection Agency (EPA) Region 2, and an EPA contractor, PG Environmental, LLC (hereinafter, collectively, the EPA Audit Team) conducted an audit of the Municipal Separate Storm Sewer System (MS4) Program of the New York State Department of Transportation (hereinafter, NYSDOT).

Discharges from NYSDOT's MS4 are regulated under the New York State Department of Environmental Conservation (NYSDEC) *State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems*, Permit No. GP-0-10-002 (SPDES ID No. NYR20A288; hereinafter, the Permit; see Appendix A), effective May 1, 2010. The Permit is set to expire on April 30, 2015.

NYSDOT submitted its Notice of Intent (NOI) for coverage under the *General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems*, Permit No. GP-02-02, on March 10, 2003. NYSDOT subsequently received coverage under the SPDES General Permit (GP-02-02) (NYR20A288), which became effective January 8, 2003 and expired on January 8, 2008. Permit coverage remained in full force and effect and was automatically carried over upon the reissuance of SPDES General Permit (GP-08-002), which became effective on May 1, 2008 and expired on April 30, 2010. Upon expiration, permit coverage was automatically carried over to the current permit, SPDES General Permit (GP-0-10-002), which became effective on May 1, 2010 and expires on April 30, 2015.

Part IV.A of the Permit requires NYSDOT to “develop, implement, and enforce a SWMP [stormwater management program] designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable.” Part IV.A goes on to explain that NYSDOT, as a covered entity under the previous MS4 permit [Permit No. GP-0-08-002], must have prepared a SWMP plan documenting modifications to its stormwater management program. Pursuant to this requirement, NYSDOT prepared the New York State Department of Transportation Stormwater Management Program Plan (hereinafter, NYSDOT SWMP Plan). In response to the EPA Audit Team's request, NYSDOT provided a copy of its most recently updated SWMP Plan, dated May 2012 (see Appendix B). This document is referenced, as applicable, throughout the audit report.

NYSDOT's transportation network comprises more than 113,000 miles of highway, 17,400 bridges, 3,500 miles of railway, and almost 500 aviation facilities. NYSDOT is separated into 11 distinct regions with the NYSDOT main office headquarters located in Albany, NY.

Though NYSDOT has implemented a statewide MS4 Program, and the NYSDOT SWMP Plan addresses statewide implementation, this audit focused on implementation of the MS4 program in NYSDOT Region 9, which serves the following counties: Broome, Chenango, Delaware, Otsego, Schoharie, Sullivan, and Tioga. The Region 9 headquarters

is in Binghamton, New York. Specifically, the audit focused on program implementation within the urbanized areas of Broome and Tioga Counties.

The audit focused on the following four minimum control measures (MCMs) described in Part VIII of the Permit.

- MCM 3 Illicit Discharge Detection and Elimination (IDDE)
- MCM 4 Construction Site Stormwater Runoff Control
- MCM 5 Post-construction Stormwater Management
- MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations.

The purpose of the audit was to obtain information that will assist EPA in assessing NYSDOT's compliance with the requirements of the Permit and associated NYSDOT SWMP Plan, as well as the implementation status of the current MS4 program. The audit agenda is presented as Appendix C.

The EPA Audit Team obtained information through a series of interviews with the NYSDOT Statewide Stormwater Program Coordinator and representatives from NYSDOT Region 9, along with a series of site visits, record reviews, and field verification activities.

Intermittent precipitation was experienced during the first day of audit field activities. History reports¹ indicate that about 0.21 inch of rain fell in the Binghamton, NY area on June 19, 2012.

The primary representatives involved in the audit were the following:

NYSDOT Region 9 MS4 Program Compliance Audit: June 19–21, 2012	
NYSDOT State Representative	Dave Graves, Statewide Stormwater Program Coordinator
NYSDOT Region 9 Representatives	Matt Stiles, Design Quality Control Mitch Sosnicki, Design Environmental Specialist Pam Eshbaugh, Regional Planning & Program Manager Andy Stiles, Regional Director of Operations Steve Cammisa, Environmental Specialist Larry Cutting, Construction Environmental Coordinator Brent Perkins, NYSDOT Seasonal Intern Mike Huff, Engineering Technician (ET)

¹ Precipitation data from the "KBGM" weather station in Binghamton, NY, found online at <www.wunderground.com>.

NYSDOT Region 9 MS4 Program Compliance Audit: June 19–21, 2012	
NYSDEC Representative	Ellen Hahn, Stormwater Control Specialist, Division of Water
EPA Representative	Christy Arvizu, EPA Region 2
EPA Contractors	Max Kuker, PG Environmental, LLC Candice Owen, PG Environmental, LLC Kortney Kirkeby, PG Environmental, LLC

Section 2.0 Information Obtained Regarding Compliance with the Permit

The EPA Audit Team conducted an evaluation of NYSDOT’s MS4 program to obtain information that will assist EPA in assessing compliance with the requirements of the Permit.

Prior to the audit, the EPA Audit Team formally requested that NYSDOT have specific documentation available for review at the time of the audit. The EPA Audit Team provided NYSDOT with a “Pre Audit Questionnaire and Records Request” on May 18, 2012 (hereinafter, EPA Records Request; see Appendix D). In response, NYSDOT provided the EPA Audit Team with a digital copy of the completed questionnaire and an inventory of provided documents (hereinafter, NYSDOT Response Inventory; see Appendix E). In addition, NYSDOT made multiple documents available during the audit and provided additional documents subsequent to the audit. The EPA Records Request and NYSDOT Response Inventory are referenced, as applicable, throughout this audit report.

During the audit, the EPA Audit Team obtained documentation and other supporting evidence regarding compliance with the Permit and NYSDOT’s implementation of the NYSDOT SWMP Plan. Pertinent information obtained during the evaluation is presented in this report as audit observations. The presentation of audit observations in this report does not constitute a formal compliance determination or notice of violation, but rather identifies the status of program implementation and areas of potential non-compliance. Referenced documentation used as supporting evidence is provided in Appendix F, Exhibit Log. In addition, individual site write-ups from NYSDOT construction site visits and NYSDOT operation and maintenance facility inspections conducted as a component of the audit are provided in Appendix G and Appendix H, respectively. Photographs associated with site visits related to Illicit Discharge Detection and Elimination and Post-Construction Stormwater Management are located in Attachments 1 and 2, respectively.

Table 1 provides a summary of the EPA Audit Team’s overall audit observations. Descriptions and details regarding the audit observations, as well as supporting documentation, are provided in the applicable sections of the MS4 audit report.

Table 1. Requirements of NYSDOT's NPDES Permit (GP-0-10-002; SPDES ID No. NYR20A288) and Observations Identified by the EPA Audit Team

Minimum Control Measures and Permit Requirements	Observations
<p>Stormwater Management Program</p> <p>Part IV.A of the Permit requires NYSDOT to develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable (MEP).</p> <p>See Section 2.1 of the audit report for the specific permit references for each observation.</p>	<ol style="list-style-type: none"> 1. Data and Records Management (Section 2.1.1). 2. Measurable Goals (Section 2.1.2). <p>See the referenced sections of the audit report for further discussion of these issues.</p>
<p>Illicit Discharge Detection and Elimination (IDDE)</p> <p>Part VIII.A.3.a of the Permit requires NYSDOT to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4. The program must include the specific requirements for program implementation identified at Parts VIII.A.3.b–k of the Permit.</p> <p>See Section 2.2 of the audit report for the specific permit references for each observation.</p>	<ol style="list-style-type: none"> 1. The EPA Audit Team conducted site visits to multiple NYSDOT MS4 outfalls as a component of the audit (Section 2.2.1). 2. NYSDOT did not have a written directive from the person authorized to sign the Notice of Intent (NOI) stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing mechanisms for the IDDE program (Section 2.2.2). 3. Deficiencies were noted with regard to NYSDOT's storm sewer system map (Section 2.2.3). 4. NYSDOT had not identified the preliminary boundaries of its storm sewersheds in its GIS-based MS4 map (Section 2.2.4). 5. NYSDOT had not conducted components of its outfall reconnaissance inventory activities in accordance with EPA guidance and NYSDOT procedures (Section 2.2.5). 6. NYSDOT had not informed the public of the hazards associated with illegal discharges and the improper disposal of waste (Section 2.2.6). 7. NYSDOT had not developed procedures for identifying priority areas of concern within the MS4 for the IDDE program (Section 2.2.7). 8. NYSDOT had not developed and implemented procedures for identifying illicit discharges or eliminating illicit discharges during outfall reconnaissance inventories (Section 2.2.8). 9. NYSDOT had not developed and implemented procedures for identifying illicit discharges or eliminating illicit discharges during outfall reconnaissance inventories (Section 2.2.9). 10. NYSDOT had not developed and implemented procedures for documenting actions associated with identifying and locating illicit discharges or eliminating illicit discharges

Minimum Control Measures and Permit Requirements	Observations
	<p>(Section 2.2.10).</p> <p>11. NYSDOT is subject to additional Permit requirements for program implementation (Section 2.2.11).</p> <p>See the referenced sections of the audit report for further discussion of these issues.</p>
<p>Construction Site Stormwater Runoff Control</p> <p>Part VIII.A.4 of the Permit requires NYSDOT to develop, implement, and enforce a program to address stormwater runoff from construction sites that satisfies the requirements at Part VIII.A.4.a.i–x of the Permit.</p> <p>See Section 2.3 of the audit report for the specific permit references for each observation.</p>	<ol style="list-style-type: none"> 1. Deficiencies were noted during construction site visits conducted as a component of the audit (Section 2.3.1). 2. The EPA Audit Team noted that construction site stormwater runoff control inspections were performed more than seven calendar days apart at the State Route 201/434 Construction Project (Section 2.3.2). 3. NYSDOT did not have written procedures to ensure that consultant stormwater inspectors have certifications/qualifications at least equivalent to those outlined in the NYS Construction General Permit prior to conducting erosion and sediment control inspections for NYSDOT projects (Section 2.3.3). 4. NYSDOT had not implemented a quality control program to improve its erosion and sediment control program as described in the NYSDOT SWMP Plan (Section 2.3.4). 5. NYSDOT had not developed or implemented procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site stormwater runoff (Section 2.3.5). 6. NYSDOT is subject to additional Permit requirements for program implementation (Section 2.3.6). <p>See the referenced sections of the audit report for further discussion of these issues.</p>
<p>Post-construction Stormwater Management</p> <p>Part VIII.A.5 of the Permit requires NYSDOT to develop, implement, and enforce a program to address post-construction stormwater management that satisfies the requirements at Part VIII.A.5.a–d of the Permit.</p> <p>See Section 2.4 of the audit report for the specific permit references for observation.</p>	<ol style="list-style-type: none"> 1. The EPA Audit Team visited multiple NYSDOT stormwater management practices (SMPs) as a component of the audit (Section 2.4.1). 2. NYSDOT did not have a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing mechanisms for construction projects on NYSDOT property (Section 2.4.2). 3. NYSDOT had not established and maintained an inventory of stormwater management practices that included the minimum information required by the Permit (Section 2.4.3). 4. NYSDOT had not developed a formal method of assessment to ensure stormwater management practices are performing properly (Section 2.4.4). 5. NYSDOT had not performed maintenance on stormwater

Minimum Control Measures and Permit Requirements	Observations
	<p>management practices (Section 2.4.5).</p> <p>6. NYSDOT had not trained staff to ensure adequate long-term operation and maintenance of management practices (Section 2.4.6).</p> <p>7. NYSDOT is subject to additional Permit requirements for program implementation (Section 2.4.7).</p> <p>See the referenced section of the audit report for further discussion of this issue.</p>
<p>Pollution Prevention and Good Housekeeping for Municipal Operations</p> <p>Part VIII.A.6.a of the Permit requires NYSDOT to develop and implement a pollution prevention / good housekeeping program for municipal operations and facilities that satisfies the requirements at Part VIII.A.6.a–e of the Permit.</p> <p>See Section 2.5 of the audit report for the specific permit references for each observation.</p>	<p>1. NYSDOT had not performed and documented a self-assessment of all municipal operations and facilities (Section 2.5.1).</p> <p>2. NYSDOT had not developed or implemented an adequate pollution prevention/good housekeeping training program (Section 2.5.2).</p> <p>3. NYSDOT had not developed or implemented SWPPPs for its operation and maintenance facilities (Section 2.5.3).</p> <p>4. Deficiencies were noted during inspections of NYSDOT residencies and fixed facilities conducted as a component of the audit (Section 2.5.4).</p> <p>5. NYSDOT is subject to additional Permit requirements for program implementation (Section 2.5.5).</p> <p>See the referenced sections of the audit report for further discussion of these issues.</p>

Section 2.1 Stormwater Management Program Observations

Part IV.A of the Permit requires NYSDOT to develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable (MEP).

2.1.1 Data and Records Management

The EPA Audit Team observed that a more rigorous data and records management procedure may be necessary in order for NYSDOT to demonstrate that the required tasks specified in the Permit have been met. The EPA Audit Team provided the EPA Records Request to NYSDOT on May 18, 2012 and requested that NYSDOT fill out the electronic document to denote the status of the documentation requested and to provide information during the applicable program element audit discussions. NYSDOT was unable to provide many of the listed items in the EPA Records Request because the documentation was “not available.”

NYSDOT noted in the NYSDOT Response Inventory that the documentation was “not available” for eight items identified in the EPA Records Request. In addition, NYSDOT indicated in the NYSDOT Response Inventory that several requested procedures (e.g., procedures for receiving and investigating public/employee complaints) and examples of documentation (e.g., inventory of reported incidents of illicit discharges / connections / spills and resolution) did not exist.

2.1.2 Measurable Goals

NYSDOT had not articulated the overarching outcomes that it is attempting to achieve in its stormwater management program. Furthermore, NYSDOT had not developed measurable goals that can be effectively used to quantify and track progress in achieving program outcomes and requirements. The EPA Audit Team observed that many of the measurable goals contained in NYSDOT’s SWMP Plan appear generic in nature, are not designed to determine the effectiveness of the NYSDOT’s stormwater management program, and lack a schedule or date of completion and quantifiable targets to measure progress toward achieving the activity of the best management practice (BMP).

NYSDOT should develop adequate measurable goals to gauge Permit compliance and program effectiveness for each MCM included in the SWMP Plan and should select measurable goals using an integrated approach that fully addresses the requirements and intent of each MCM.

Section 2.2 Illicit Discharge Detection and Elimination

Part VIII.A.3.a of the Permit requires NYSDOT to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4. The program must include the specific requirements for program implementation identified at Parts VIII.A.3.b–k of the Permit.

2.2.1 The EPA Audit Team conducted site visits to multiple NYSDOT MS4 outfalls as a component of the audit.

On June 20, 2012, the EPA Audit Team, along with NYSDOT staff, visited six NYSDOT MS4 outfalls within the urbanized area. The primary purpose of the site visits was to document site conditions, observe NYSDOT outfall screening procedures, and validate the accuracy of outfalls mapped in the NYSDOT geographic information system (GIS) database. During the site visits, the EPA Audit Team observed NYSDOT staff conduct outfall screening and compared outfall locations to outfalls identified in NYSDOT's GIS. The site visits were conducted during dry weather, however, precipitation occurred in the Binghamton, NY area on the day prior to the site visit.

The following locations were visited during the audit:

- Outfall at Exchange Street and North Shore Drive, Binghamton, NY.
- Three outfalls underneath Route 26, Endicott, NY.
- Outfall from wet pond along Highway 26, Endicott, NY.

The EPA Audit Team identified multiple findings regarding the location, condition, and mapping of NYSDOT outfalls. The EPA Audit Team's observations are summarized below and photographs from the site visits are presented in [Attachment 1](#).

Outfall at Exchange Street and North Shore Drive, Binghamton, NY – The outfall was a 48-inch pipe with a flapper gate located under the Exchange Street Bridge (see [Attachment 1, Photograph 1](#)). The outfall discharges directly into the Susquehanna River. Dry weather flow was observed at the time of the site visit, and algae growth was present on the ground surface directly downstream of the outfall flow indicating that flow from the outfall may be persistent (see [Attachment 1, Photographs 2, 3, and 4](#)). NYSDOT staff stated that flow was observed at this outfall during past outfall reconnaissance visits. Indicators that the flow was an illicit discharge were not observed. This outfall was displayed in NYSDOT's GIS-based map.

Outfalls underneath Route 26, Endicott, NY – Three outfalls were observed on the south bank of the Susquehanna River underneath Route 26 in Endicott, NY. For identification purposes, the outfalls have been labeled Nos. 1 through 3 by location from east to west. These outfalls were displayed in NYSDOT's GIS-based map; however, it was not apparent to the EPA Audit Team that each of the observed outfalls convey drainage from NYSDOT property. The NYSDOT GIS did not contain information regarding the storm sewersheds for the outfalls.

Outfall No. 1, easternmost outfall underneath Route 26, Endicott, NY – The outfall consisted of an oval corrugated metal pipe (see Attachment 1, Photographs 5 through 7). Debris was observed in the outfall, and some erosion had occurred on the banks adjacent to and downgradient of the outfall. Dry weather flow was not observed at the outfall.

Outfall No. 2, west of Outfall No. 1 underneath Route 26, Endicott, NY – The outfall consisted of a headwall with a 24-inch pipe and flapper gate. Dry weather flow was observed at the outfall (see Attachment 1, Photographs 8 and 9). Indicators that the flow was an illicit discharge were not observed.

Outfall No. 3, westernmost documented outfall underneath Route 26, Endicott, NY – The outfall consisted of a 24-inch high density polyethylene (HDPE) pipe. Erosion and debris were observed at and downgradient of the outfall (see Attachment 1, Photographs 10 and 11). Dry weather flow was observed at the outfall. Indicators that the flow was an illicit discharge were not observed.

Outfall from wet pond near the Intersection of Nanticoke Drive and Highway 26, Endicott, NY – An outfall from a NYSDOT wet pond that collects stormwater runoff from Highway 26 was observed in Endicott, NY (see Attachment 1, Photograph 12). Stormwater discharges from the outfall flow north and eventually enter Nanticoke Creek (see Attachment 1, Photographs 13 and 14). Flow from the wet pond was observed. The outfall was not displayed in NYSDOT's GIS-based map.

2.2.2 NYSDOT did not have a written directive from the person authorized to sign the Notice of Intent (NOI) stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing mechanisms for the IDDE program.

Part VIII.A.3.f.ii of the Permit requires NYSDOT to develop and implement the following:

a written directive from the person authorized to sign the NOI [Notice of Intent] stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing mechanisms for the covered entity's IDDE program.

The EPA Audit Team formally requested NYSDOT's "Written directive from person authorized to sign NOI stating regulatory mechanisms must be used and describing positions responsible for compliance" (EPA Records Request Item No. 8); however, NYSDOT responded in the NYSDOT Response Inventory that the document was "Not available." Further, NYSDOT staff did not provide the written directive during the audit.

2.2.3 Deficiencies were noted with regard to NYSDOT's storm sewer system map.

Part VIII.A.3.b of the Permit requires NYSDOT to do the following:

Develop (for newly authorized MS4s) and maintain a map, at a minimum within the covered entity's jurisdiction in the urbanized area and additionally designated area, showing: the location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls;

Furthermore, Part VIII.A.3.c of the Permit requires NYSDOT to field verify outfall locations; Part VIII.A.3.d of the Permit requires NYSDOT to conduct outfall reconnaissance activities for outfalls in the urbanized area at least once every five years; and Part VIII.A.3.e of the Permit requires NYSDOT to map new outfalls as they are constructed or discovered within the urbanized area or additionally designated area(s).

Pursuant to these requirements, Section III.2.a of the NYSDOT SWMP Plan states, “By April 2008, NYSDOT had mapped 18,184 outfalls located along state-owned highways within the Designated Urbanized Areas in New York.” Table III.1 – *Number of Stormwater Outfalls Mapped in Designated Urbanized Areas, 2004-2008*, located in Section III.2.a of the NYSDOT SWMP Plan identifies that NYSDOT Region 9 has 742 outfalls. Section III.2.c of the NYSDOT SWMP Plan additionally references Engineering Instruction (EI) No. 07-033 and states that the document “provides guidance regarding stormwater outfall mapping data collection, inventory and distribution between Regional Design, Construction and Maintenance Groups, and contains protocol for capturing and documenting outfall and associated attribute data for outfalls that are newly constructed, relocated, or removed, and to have those changes incorporated into the database.”

NYSDOT Region 9 provided the EPA Audit Team with paper copies of its storm sewer system map entitled *New York State Department of Transportation Stormwater Outfalls*, dated November 24, 2009 (hereinafter, NYSDOT Outfall Map). Portions of the NYSDOT Outfall Map pertinent to the audit are located in Appendix F, Exhibit 1. NYSDOT staff additionally provided an on-site demonstration of storm drain system mapping tools in GIS format during the audit office session. NYSDOT staff explained, as stated in the NYSDOT SWMP Plan, that outfall mapping was conducted in 2008 and that NYSDOT staff had been using protocol contained in EI No. 07-033 to update the map as needed. NYSDOT staff explained that mapping updates and field verification activities were conducted in part through the outfall reconnaissance inventory process. NYSDOT staff stated that they had conducted field verification activities for about 90 percent of the NYSDOT outfalls identified during the 2008 efforts, and that this verification process is conducted through the employment of seasonal interns.

The NYSDOT Seasonal Intern stated that he completed an “Outfall Inspection Form” for each outfall to document field verification activities. He explained that he entered information from the completed forms into the GIS at the office as time allowed; however, he stated that only about 25 percent of the forms had been entered into the GIS.

During a site visit to a stormwater management practice (SMP) located adjacent to State Route 26 and the Nanticoke River, the EPA Audit Team observed an outfall that is not located on the NYSDOT Outfall Map. It was unclear to the EPA Audit Team whether this outfall had been missed during original mapping or if the SMP had been implemented after mapping had been conducted and had not been added to the map. Observations made during site visits to multiple MS4 outfalls on June 20, 2012 are included in Section 2.2.1, above, and related photographs are located in Attachment 1. In summary, NYSDOT had not updated its mapping to include all outfalls and all information gathered during outfall reconnaissance activities.

In summary, deficiencies related to NYSDOT's storm sewer system map included: (1) an outfall was not mapped in NYSDOT's system, (2) NYSDOT's GIS mapping had not been updated with information from outfall reconnaissance activities due to a lack of staff to perform the task, and (3) field verification had not been conducted on the entire inventory of outfalls identified through the 2008 mapping process.

2.2.4 NYSDOT had not identified the preliminary boundaries of its storm sewersheds in its GIS-based MS4 map.

Part VIII.A.3.b of the Permit requires that NYSDOT do the following:

Develop (for newly authorized MS4s) and maintain a map, at a minimum within the covered entity's jurisdiction in the urbanized area and additionally designated area, showing [that]...by March 9, 2010, the preliminary boundaries of the covered entity's storm sewersheds have been determined using GIS or other tools, even if they extend outside of the urbanized area.

Part X of the Permit defines a storm sewershed as, "the catchment area that drains into the storm sewer system based on the surface topography in the area served by the storm sewer. Adjacent catchment areas that drain to adjacent outfalls are not separate storm sewersheds."

Section III.2.b of the NYSDOT SWMP Plan explains that NYSDOT has a comprehensive digital repository of "As-Built Contract Plans" that show drainage networks at a scale sufficient to determine drainage direction and connections. The NYSDOT SWMP Plan further explains the "As-Built Contract Plans" would be used to determine the source of suspected illicit discharges in the NYSDOT right-of-way. Section III.2.b of the NYSDOT SWMP Plan states, "Because these plans would be used to conduct trackdown of suspected illicit discharge, and have such good detail (showing land features in the right-of-way), NYSDOT considers these to satisfy current MS4 requirements for 'preliminary boundaries' and 'system mapping.'"

During the audit, the NYSDOT Statewide Stormwater Program Coordinator stated that the storm sewersheds had not been mapped in NYSDOT's GIS-based map; however, NYSDOT staff stated that they were able to use the record plans associated with each individual NYSDOT project as tools to track flows upstream for IDDE activities.

2.2.5 NYSDOT had not conducted components of its outfall reconnaissance inventory activities in accordance with EPA guidance and NYSDOT procedures.

Part VIII.A.3.d of the Permit requires NYSDOT to do the following:

Conduct an outfall reconnaissance inventory, as described in the EPA publication entitled Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment (hereinafter, EPA IDDE Guidance), addressing every outfall within the urbanized area and additionally designated area within the covered entity's jurisdiction at least once every five years, with reasonable progress each year.

Section III.2.d of the NYSDOT SWMP Plan states that NYSDOT has developed instructions for conducting outfall inspections that are consistent with the EPA IDDE Guidance. The NYSDOT SWMP Plan further indicates that Chapter 11 ("The Outfall

Reconnaissance Inventory”) of the EPA IDDE Guidance is an appendix to NYSDOT’s instructions. Section II.2.d. of the NYSDOT SWMP Plan states, “Training of regional staff that was [sic] identified as outfall inspectors was conducted in January and February, 2011. As a result of these training events, the written instructions need to be revised.”

NYSDOT staff explained that this document had been used to train seasonal interns who conducted outfall reconnaissance inventories. The EPA Audit Team formally requested an “employee/maintenance personnel training records and syllabus pertaining to IDDE.” In response NYSDOT provided “Outfall Inspection Training” Agenda and Presentation slides (see [Appendix F, Exhibit 2](#)). The EPA Audit Team also formally requested “written procedures for field screening outfalls and procedures for IDDE [illicit discharge detection and elimination]” (EPA Records Request Item No. 16). In response, NYSDOT provided a document entitled “Instructions for Conducting Outfall Inspections” (hereinafter, Outfall Inspection Guidance; see [Appendix F, Exhibit 3](#)). NYSDOT staff additionally provided Chapter 11 of the EPA IDDE Guidance entitled “The Outfall Reconnaissance Inventory” (see [Appendix F, Exhibit 4](#)) and stated that this document had been supplied to the seasonal interns as part of the training information packet. The NYSDOT Seasonal Intern stated that he had been trained using the referenced documentation.

During the audit, the EPA Audit Team requested that NYSDOT personnel demonstrate outfall reconnaissance field screening and documentation procedures. NYSDOT personnel explained that outfall reconnaissance is conducted by seasonal interns, who demonstrated their standard procedures for the EPA Audit Team during the MS4 outfall site visits. The NYSDOT Seasonal Intern was observed checking for water clarity and color by placing his hand into the flow from an outfall to observe the water. Page 103 of the EPA IDDE Guidance states that sensory indicators (e.g., odor, color, turbidity, and floatables) do not always reliably predict illicit discharges, because the senses can be fooled, and this may result in a “false negative.” Page 104 of the EPA IDDE Guidance states, “The best way to measure color is to collect the discharge in a clear sample bottle and hold it up to the light.” The NYSDOT Seasonal Intern did not use a sample bottle as part of his physical indicator detection process.

2.2.6 NYSDOT had not informed the public of the hazards associated with illegal discharges and the improper disposal of waste.

Part VIII.A.3.h of the Permit requires NYSDOT to do the following:

Inform the public of the hazards associated with illegal discharges and the improper disposal of waste.

During the audit, the EPA Audit Team verbally requested documentation to demonstrate that NYSDOT had informed the public of the hazards associated with illegal discharges and improper disposal of wastes. NYSDOT staff did not provide the EPA Audit Team with documentation that the public had been informed of illegal discharges or improper waste disposal. Furthermore, NYSDOT staff stated that NYSDOT had not provided formal outreach to the public regarding these issues.

The NYSDOT Statewide Stormwater Program Coordinator explained that NYSDOT had established a page on its Web site that has information regarding NYSDOT’s stormwater program. Section III.2.e of the NYSDOT SWMP Plan states, “Since April 2004, NYSDOT has maintained a webpage devoted specifically to Stormwater Management issues, and can be found at <http://www.dot.ny.gov/divisions/engineering/environmental-analysis/water-ecology/stormwater-management>. It contains material related to NYSDOT’s Construction and MS4 Stormwater Management Programs, and specifically contains reports and websites about the sources of, and potential impacts on water bodies from, Phosphorus, Nitrogen, and Pathogens, and illicit dischargers.” The EPA Audit Team viewed the Web site and noted that while it contains multiple links to documents and information about the stormwater program, it does not appear to provide targeted information to inform the public about the hazards associated with illegal discharges and the improper disposal of waste.

2.2.7 NYSDOT had not developed procedures for identifying priority areas of concern within the MS4 for the IDDE program.

Part VIII.A.3.g of the Permit requires the City to do the following:

Develop (for newly authorized MS4s) and implement a program to detect and address non-stormwater discharges, including illegal dumping, to the small MS4. The program must include: **procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for the IDDE program** [emphasis added]; description of priority areas of concern, available equipment, staff, funding, etc.; procedures for identifying and locating illicit discharges (trackdown); procedures for eliminating illicit discharges; and procedures for documenting actions.

The EPA Audit Team formally requested a “priority list of risk areas in the storm drain system (most recent Reporting Year)” (EPA Records Request Item No. 14). In response, NYSDOT provided a list entitled “Priority List of Risk Areas in the storm-drain system” (see [Appendix F, Exhibit 5](#)); however, the document does not explain the process NYSDOT used to generate the priority list.

The document generally indicates that NYSDOT’s priority areas consist of the following:

- All active construction sites in the permitted area.
- Storm system outfalls that outlet to a 303(d) waterbody.
- The I-81 Gateway Rest Area septic system.

Additional information was not provided on procedures for identifying priority areas or on guidelines related to illicit discharges and connections and the actions that must be taken for established priority areas.

2.2.8 NYSDOT had not developed and implemented procedures for identifying illicit discharges or eliminating illicit discharges during outfall reconnaissance inventories.

Part VIII.A.3.g of the Permit requires NYSDOT to do the following:

Develop (for newly authorized MS4s) and implement a program to detect and address non-stormwater discharges, including illegal dumping, to the small MS4. The program must include: procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for the IDDE program; description of priority areas of concern, available equipment, staff, funding, etc.; **procedures for identifying and locating illicit discharges (trackdown); procedures for eliminating illicit discharges** [emphasis added]; and procedures for documenting actions.

Pages 6 and 7 of the Outfall Inspection Guidance, under the heading “How to Conduct Outfall Inspections,” states, “The presence of discharges that appear to be water (even turbid water) should not be ‘flagged’ as potential illicit discharges. There is no need to sample discharges to confirm the presence or absence of an illicit discharge.” Part X of the Permit defines illicit discharges as, “discharges not entirely composed of stormwater into the small MS4.... However, an illicit discharge could be any other non-permitted discharge which the covered entity or Department has determined to be a substantial contributor of pollutants to the small MS4.”

Slide 28 of the “Outfall Inspection Training” presentation explains that NYSDOT inspectors should notify the Regional Maintenance Environmental Contact (MEC) if a suspected illicit discharge is found; however, during the outfall site visits conducted as a component of the audit, the NYSDOT Seasonal Intern stated that he had observed dry weather flows at a couple of the outfalls he had inventoried, but stated that the flow had “looked like stormwater” and so he had not informed anyone of a potential illicit discharge. He additionally stated that he would inform the MEC if he observed a flow that he thought was an illicit discharge.

2.2.9 NYSDOT had not developed and implemented procedures for identifying and locating illicit discharges or eliminating illicit discharges.

Part VIII.A.3.g of the Permit requires NYSDOT to do the following:

Develop (for newly authorized MS4s) and implement a program to detect and address non-stormwater discharges, including illegal dumping, to the small MS4. The program must include: procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for the IDDE program; description of priority areas of concern, available equipment, staff, funding, etc.; **procedures for identifying and locating illicit discharges (trackdown); procedures for eliminating illicit discharges** [emphasis added]; and procedures for documenting actions.

Section III.1.a of the NYSDOT SWMP Plan identifies subsection 8.2.3 of the *Highway Design Manual*, “Chapter 8: Highway Drainage,” as containing a policy regarding “private connections and discharges to NYSDOT’s stormwater system.” The EPA Audit Team reviewed subsection 8.2.3 of the NYSDOT *Highway Design Manual* and noted that the guidance document explains that NYSDOT staff should contact New York State Department of Health (NYSDOH) regarding illicit connections to the MS4. In addition, Section III.1.a of the NYSDOT SWMP Plan states that NYSDOT is in the process of

developing an EI to “clarify and emphasize department policy regarding sanitary connections, stormwater connections, sanitary discharges, and illicit discharges,” but the EI had not been issued and is not yet in effect.

NYSDOT staff explained that formal procedures other than outfall reconnaissance activities had not been implemented for identifying, locating, and eliminating illicit discharges. In addition, the EPA Audit Team observed that several NYSDOT staff interviewed during the audit were not aware of what an illicit discharge is or how to identify one. The EPA Audit Team observed instances of illicit discharges occurring at the NYSDOT residency facilities. These illicit discharges include evidence of oil/fluid spills, undesignated vehicle/equipment wash areas, and leaking petroleum and paint containers. These site observations are further described in Section 2.5.4 of the audit report.

2.2.10 NYSDOT had not developed and implemented procedures for documenting actions associated with identifying and locating illicit discharges or eliminating illicit discharges.

Part VIII.A.3.g of the Permit requires NYSDOT to do the following:

Develop (for newly authorized MS4s) and implement a program to detect and address non-stormwater discharges, including illegal dumping, to the small MS4 in accordance with current assistance and guidance documents from the State and EPA. The program must include: procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for the IDDE program; description of priority areas of concern, available equipment, staff, funding, etc.; procedures for identifying and locating illicit discharges (trackdown); procedures for eliminating illicit discharges; **and procedures for documenting actions** [emphasis added].

The EPA Audit Team formally requested an “inventory of reported incidents of illicit discharges/connections/spills and resolution (most recent reporting year)” (EPA Records Request Item No. 10); however, in the NYSDOT Response Inventory, NYSDOT replied that this information was “Not available” ([see Appendix E, Item No. 10](#)).

In addition, the EPA Audit Team formally requested “procedures for receiving and investigating public/employee complaints” (EPA Records Request Item No. 9); however, NYSDOT responded that there were “no written procedures” ([see Appendix E, Item No. 9](#)). NYSDOT staff stated that they were not aware of procedures for following up on illicit discharges identified by NYSDOT employees or the general public.

2.2.11 NYSDOT is subject to additional Permit requirements for program implementation.

The EPA Audit Team did not comprehensively evaluate all Permit requirements within the Illicit Discharge Detection and Elimination MCM. In addition to the Permit requirements identified in the findings above, NYSDOT is subject to the following Permit requirements not directly associated with findings in this report.

- Part VIII.A.3.i of the Permit requires NYSDOT to, “Address the categories of non-stormwater discharges or flows listed in Part I.A.2 as necessary and maintain records of notification.”
- Part VIII.A.3.j of the Permit requires NYSDOT to, “Develop (for newly authorized MS4s), record, periodically assess, and modify as needed, measurable goals.”
- Part VIII.A.3.k of the Permit requires NYSDOT to, “Select and implement appropriate IDDE best management practices (BMPs) and measurable goals to ensure the reduction of all pollutants of concern (POCs) in stormwater dischargers to the MEP.”

Section 2.3 Construction Site Stormwater Runoff Control

Part VIII.A.4 of the Permit requires NYSDOT to develop, implement, and enforce a program to address stormwater runoff from construction sites that satisfies the requirements at Part VIII.A.4.a.i–x of the Permit.

The program must provide equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (hereinafter, Construction General Permit) and address stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre or are part of a larger common plan of development that would disturb more than one acre.

For sites larger than one acre, NYSDEC requires the implementation of erosion and sediment controls; the department also requires specialized training for erosion and sediment control inspectors. Additionally, Section IV of the NYSDOT SWMP Plan requires permittees to implement and enforce a program that addresses stormwater runoff to the small MS4 from construction activities that result in land disturbance of greater than or equal to one acre, and for disturbances less than one acre if the construction activity is part of a larger common plan of development or controlling such activities in a particular watershed is required by NYSDEC. Section IV.1.b of the NYSDOT SWMP Plan states, “All temporary controls shall be inspected by the Contractor every seven calendar days and after each rainfall of ½ inch or more within a 24 hour period to determine if the measure is functioning as intended. All inspections shall be completed within one calendar day.”

The EPA Audit Team discussed NYSDOT’s construction stormwater program with multiple NYSDOT staff, including NYSDOT’s Construction Environmental Coordinator (CEC). NYSDOT staff explained that NYSDOT or its design consultant will prepare an initial erosion and sediment control plan for a construction project. They further stated that each contractor is required to follow the soil erosion and sediment control plan.

Multiple NYSDOT staff explained that many of NYSDOT’s construction projects are built by outside contractors. They further explained that NYSDOT assigns an Engineer-in-Charge (EIC) to provide oversight for each construction project. Either a consultant inspector or the assigned NYSDOT EIC conducts construction stormwater inspections of each construction site at least once every seven calendar days and after rainfall events producing greater than 0.5 inch of precipitation. The inspector uses the forms provided by NYSDOT to document the inspections. Aside from on-site communication with the contractor, NYSDOT staff explained that they have two primary enforcement capabilities for addressing erosion and sediment control issues with non-compliant contractors: (1) stop work order, and (2) withholding payment. It should be noted that the CEC has no direct ability to enforce the requirements of the erosion and sediment control plans.

2.3.1 Deficiencies were noted during construction site visits conducted as a component of the audit.

On June 19–21, 2012, the EPA Audit Team, along with NYSDOT staff, visited three NYSDOT construction projects within the urbanized area. The primary purpose of the

site visits was to document site conditions and to assess NYSDOT's and the contractor's oversight activities for stormwater runoff control at the construction sites. During the site visits, the EPA Audit Team walked the construction sites with NYSDOT and contractor representatives.

The following construction sites were visited during the audit:

- State Route 201/434 Construction Project.
- Prospect Mountain Phase 1 Construction Project.
- I-81/I-86 Bridge Reconstruction Project.

The EPA Audit Team identified multiple findings regarding erosion and sediment control and good housekeeping for the construction sites. Detailed observations and photographs from the site visits are presented in individual site visit reports included as Appendix G. A summary of observations from each site visit follows.

NYS Route 201/434 Bridge Construction Project – The project involves the replacement of two bridges carrying Route 201 over Route 434, and Route 201 over Vestal Road. Bothar Construction, LLC is the prime contractor for the project. The project disturbance is approximately 18.4 acres. Stormwater runoff from the project is primarily conveyed to four infiltration basins at the intersection of Route 434 and Route 201. NYSDOT staff stated that the infiltration basins have not functioned as designed; therefore, drainage has been modified to include outfalls from two of the basins to allow the discharge of stormwater to Bunn Hill Creek, a tributary to the Upper Susquehanna River.

The NYSDOT EIC explained that a subcontractor conducted stormwater inspections of the project on a weekly basis and after rainfall events of greater than 0.5 inch. The EPA Audit Team observed that stormwater inspections were conducted more than seven calendar days apart on two occasions during the three-month period of review. This issue is further discussed in Section 2.3.2 below. Physical issues noted during the site visit include the following:

1. Silt fence maintenance issues.
2. Sediment and debris around storm drain drop inlets.
3. Housekeeping issues (e.g., material storage).
4. Perimeter control issues.

Prospect Mountain Phase 1 Construction Project – The project involves improvements to the roadways with and around the directional, three-leg NYS 17/I-81 interchange in the City of Binghamton and Town of Dickson in Broome County. The current phase of the project includes highway work, bridge work, and miscellaneous support and drainage work for reconstruction of NYS 17 and I-81. The Assistant EIC explained that the project was designed to be completed over a four-year period to minimize active land disturbance and for traffic control purposes. The project began in December 2011. The estimated area of the site is 108.7 acres. Lancaster and Tully Construction is the prime

contractor for the project. The prime contractor has multiple subcontractors working on various aspects of the project.

The NYSDOT assistant EIC explained that he and another EIC conduct stormwater inspections of the project on a weekly basis and after rainfall events of greater than 0.5 inch. Physical issues noted during the site visit include the following:

1. Perimeter control issues along Truesdell Street.
2. Sediment and fine particles around several storm drain drop inlets.
3. Lack of perimeter controls in the active construction area along Prospect Street.

Interstate 81/Interstate 86 Construction Project – The project includes replacing an existing bridge on the exit ramp from I-81 southbound to I-86 eastbound. The bridge carries the I-86 eastbound traffic over I-81 northbound and Park Creek, a tributary to the Susquehanna River. The staging area for construction equipment and a temporary access road are located north of I-81 and east of Park Creek. Storm drain inlets have been installed on the northwest and southwest corners of I-81 westbound and Park Creek. The project was anticipated to be completed in December 2012. Economy Paving Co. is the prime contractor for the project.

The NYSDOT EIC explained that they conduct stormwater inspections of the project on a weekly basis and after rainfall events of greater than 0.5 inch. Physical issues noted during the site visit include the following:

1. Silt fence and straw bale BMP maintenance issues.
2. Concrete washout conducted in un-designated areas.

2.3.2 The EPA Audit Team noted that construction site stormwater runoff control inspections were performed more than seven calendar days apart at the State Route 201/434 Construction Project.

Part VIII.A.4.a.i of the Permit requires NYSDOT to do the following:

NYSDOT must develop (for newly authorized MS4s), implement, and enforce a program that: provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities, unless more stringent requirements are contained within the SPDES general permit.

Part IV.A.1 of the Construction General Permit requires the owner or operator to ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the stormwater pollution prevention plan (SWPPP) are maintained in effective operating condition at all times. Furthermore, Part IV.C.2.a of the Construction General Permit states that for construction sites where soil disturbance activities are on-going, the qualified inspector shall conduct a site inspection at least once every seven calendar days. The Construction General Permit includes alternative inspection frequencies for projects that disturb more than five acres of soil at any one time, sites where construction activity is temporarily suspended, or projects that are partially completed.

Section IV.1.b of the NYSDOT SWMP Plan states that all temporary controls shall be inspected by the contractor every seven calendar days and after each rainfall of 0.5 inch or more within a 24-hour period to determine if the measure is functioning as intended. NYSDOT staff explained that the contractor is required to conduct these site inspections on a weekly basis. NYSDOT staff explained that a NYSDOT EIC, environmental specialist, or consultant inspector conducts construction stormwater inspections of each construction site at least once every seven calendar days and after rainfall events producing greater than 0.5 inch of precipitation within a 24-hour period. These inspections are documented on inspection forms completed by the inspector.

During the construction site visits conducted as a component of the audit, the EPA Audit Team requested construction stormwater runoff control inspection records for the three months prior to the audit (April 2012 through late-June 2012) to assess the frequency and adequacy of the inspections. The EPA Audit Team conducted a review of the inspection records at each construction site. During its review of the inspection records, the EPA Audit Team noted that stormwater inspections were conducted more than seven calendar days apart at the State Route 201/434 construction project. Specifically, inspections were conducted 14 days apart for the period from April 25, 2012 to May 9, 2012, and for the period from May 9, 2012 to May 23, 2012. Both the NYSDOT CEC and the EIC were aware of the inspection frequency requirement, and were unsure why the inspections had not been conducted every seven days. The EPA Audit Team did not observe discrepancies with the frequency of inspections for the other two construction sites visited.

During a review of inspection records of the I-81/86 Bridge Replacement Project, the EPA Audit Team noted that inspections were only conducted at seven day increments, and may not have been conducted within 24 hours of rainfall events as required by the Construction General Permit. Specifically, the inspections conducted between March 20, 2012 and June 18, 2012 were identified as “Standard 7 calendar day inspections” on the inspection report forms. The inspection records did not identify any of the inspections as post-rainfall event inspections. The EPA Audit Team further noted that meteorological history reports¹ indicate that over 0.5 inch of rain fell in Binghamton, NY on the following dates during April 2012 through June 2012: April 22 (0.77 inch); April 23 (0.72 inch); May 8 (0.61 inch); May 14 (0.76 inch); May 15 (0.56 inch); June 1 (0.61 inch). Although these precipitation totals were not collected at the construction sites, it indicates that NYSDOT may not have been conducting inspections after rainfall events of 0.5 inch or more as required by the Construction General Permit.

¹ Precipitation data from the “KBGM” weather station in Binghamton, NY, found online at <www.wunderground.com>.

2.3.3 NYSDOT did not have written procedures to ensure that consultant stormwater inspectors have certifications/qualifications at least equivalent to those outlined in the NYS Construction General Permit prior to conducting erosion and sediment control inspections for NYSDOT projects.

As stated above, Part VIII.A.4.a.i of the Permit requires NYSDOT to develop, implement, and enforce a program that provides equivalent protection to the NYS Construction General Permit.

Part IV.C of the Construction General Permit states that the owner or operator shall have a “qualified inspector” conduct site inspections. “Qualified inspector” is defined in Appendix A of the Construction General Permit as the following:

a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s). It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years. It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Pursuant to this requirement, Section IV.3.d of the NYSDOT SWMP Plan states that projects covered under the Construction General Permit must be inspected by persons certified as qualified inspectors. In addition, the NYSDOT SWMP Plan explains, “NYSDOT conducted 4-hour training endorsed by NYSDEC to NYSDOT Construction and Environmental staff in February and March 2010, and in June 2011.”

As stated above, a NYSDOT EIC or a consultant inspector conducts construction stormwater inspections for each construction site. The EPA Audit Team noted that NYSDOT did not have written procedures in place explaining NYSDOT’s oversight of consultant stormwater inspections or ensuring that the consultant inspectors have the minimum training required by the Construction General Permit. The NYSDOT CEC explained that he will occasionally review the on-site stormwater inspection forms, but has no set schedule for review or oversight of the completion or adequacy of the forms. It was observed during the inspection of the Route 201/434 construction project that the prime contractor had hired a subcontractor to perform the weekly stormwater inspections. The EPA Audit Team requested the credentials for the stormwater inspector employed by the contractor; however, the NYSDOT EIC was unsure of the inspector’s credentials and was not able to provide them.

2.3.4 NYSDOT had not implemented a quality control program to improve its erosion and sediment control program as described in the NYSDOT SWMP Plan.

Section IV.2.c of the NYSDOT SWMP Plan, “Quality Control/Quality Assurance Construction Review,” states, “NYSDOT has developed a Quality Control Program to improve its Erosion and Sediment Control Program whereby review of active construction sites are conducted by Main Office and regional staff.” Further, it states, “NYSDOT has established goals and procedures, a rating system, and a checklist for conducting these project reviews.”

The EPA Audit Team requested an inspection form or checklist that the NYSDOT CEC uses to conduct site inspections as a component of NYSDOT’s Quality Control Program. The NYSDOT CEC stated that he does not document his site inspections or site visits, and does not have formal procedures that he follows for oversight of construction site stormwater inspections. The CEC further stated that he primarily visits the sites when requested by the NYSDOT EIC to help address specific questions, concerns, or issues regarding erosion and sediment control. Further, as noted above, the NYSDOT CEC explained that he will occasionally review the on-site stormwater inspection forms, but has no set schedule for review or oversight of the completion or adequacy of the forms. The EPA Audit Team found no evidence of established goals and procedures, a rating system, or a checklist for conducting construction project reviews as a component of NYSDOT’s Quality Control Program to improve its erosion and sediment control program.

2.3.5 NYSDOT had not developed or implemented procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site stormwater runoff.

Part VIII.A.4.a.v of the Permit requires NYSDOT to do the following:

Include procedures for receipt and follow up on complaints or other information by the public regarding construction site stormwater runoff.

The EPA Audit Team formally requested NYSDOT procedures for follow up on complaints and other information submitted by the public regarding construction site stormwater runoff (EPA Records Request Item No. 37); however, in the NYSDOT Response Inventory, NYSDOT responded that the document was “Not available” ([see Appendix E, Item No. 37](#)). Further, NYSDOT staff stated that NYSDOT had not developed formal or informal procedures for receiving, documenting, and responding to complaints regarding construction site stormwater runoff within their jurisdiction. The EPA Audit Team requested that NYSDOT staff explain any informal procedures that they may have in place; however, no procedures could be provided. In addition, NYSDOT’s SWMP Plan does not provide procedures or describe the process for receiving, documenting, or responding to complaints.

NYSDOT staff explained that there is no established NYSDOT system to receive public complaints regarding construction sites, as most complaints and calls are directed to a

nearby city or municipality. The NYSDOT Statewide Stormwater Program Coordinator explained that a stormwater complaint e-mail address is listed on the NYSDOT Stormwater Web page as a method to receive public complaints about stormwater-related issues. At the time of the inspection, NYSDOT had not developed or implemented a stormwater complaint telephone hotline or procedures for routing calls related to stormwater issues to the appropriate staff.

2.3.6 NYSDOT is subject to additional Permit requirements for program implementation.

The EPA Audit Team did not comprehensively evaluate all Permit requirements within the Construction Site Stormwater Runoff Control MCM. In addition to the Permit requirements identified in the findings above, NYSDOT is subject to the following Permit requirements not directly associated with findings in this report.

- Part VIII.A.4.a.iii of the Permit requires NYSDOT to develop, implement, and enforce a program that “incorporates mechanisms for construction runoff requirements from new development and redevelopment projects to the extent allowable under State and local law that meet the State’s most current technical standards: through available mechanisms (ie. tenant lease agreements, bid specifications, requests for proposals, standard contract provisions, connection permits, maintenance directives / BMPS, access permits, consultant agreements, internal policies); procedures or policies must be developed for implementation and enforcement of the mechanisms; a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing the mechanisms for construction projects that occur on property owned, under easement to, within the right-of-way of, or under the maintenance jurisdiction by the covered entity or within the maintenance jurisdiction of the MS4; and the mechanisms and directive must be equivalent to the requirements of the NYS SPDES General Permit for Stormwater Discharges from Construction Activities.
- Part VIII.A.4.a.iv of the Permit requires NYSDOT to develop, implement, and enforce a program that “allows for sanctions to ensure compliance to the extent allowable by State law.”
- Part VIII.A.4.a.vi of the Permit requires NYSDOT to develop, implement, and enforce a program that “educates construction site operators, design engineers, municipal staff and other individuals to whom these regulations apply about the construction requirements in the covered entity’s jurisdiction, including the procedures for submission of SWPPPs, construction site inspections, and other procedures associated with control of construction stormwater.”
- Part VIII.A.4.a.vii of the Permit requires NYSDOT to develop, implement, and enforce a program that “[e]nsures that construction site contractors have received erosion and sediment control training, including the trained contractors as defined in the SPDES general permit for construction, before they do work within the covered entity’s jurisdiction: training may be provided by the Department or other

- qualified entities (such as Soil and Water Conservation Districts); the covered entity is not expected to perform such training, but they may co-sponsor training for construction site operators in their area; the covered entity may ask for a certificate of completion or other such proof of training; and the covered entity may provide notice of upcoming sediment and erosion control training by posting in the building department or distribute with building permit application.”
- Part VIII.A.4.a.viii of the Permit requires NYSDOT to develop, implement, and enforce a program that “establishes and maintains an inventory of active construction sites, including the location of the site, owner / operator contact information.”
 - Part VIII.A.4.a.ix of the Permit requires NYSDOT to develop, implement, and enforce a program to “develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals; and select and implement appropriate construction stormwater BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.”

Section 2.4 Post-construction Stormwater Management

Part VIII.A.5 of the Permit requires NYSDOT to “develop, implement, and enforce a program to address post-construction stormwater management that satisfies the requirements at Part VIII.A.5.a–d of the Permit.”

2.4.1 The EPA Audit Team visited multiple NYSDOT stormwater management practices (SMPs) as a component of the audit.

On June 20, 2012, the EPA Audit Team, along with NYSDOT staff, visited three NYSDOT SMPs within the urbanized area. The primary purpose of the site visits was to document SMP conditions and to assess NYSDOT’s operation and maintenance of the SMPs. During the site visits, the EPA Audit Team conducted a walk around of the SMPs.

The following SMPs were visited during the audit:

- Wet pond near the intersection of Nanticoke Drive and Highway 26 in Endicott, NY.
- Dry swale near the intersection of Fallon Road and State Route 12 in Chenango, NY.
- Sand filter near the intersection of Oak Hill Road and State Route 12 in Chenango, NY.

The EPA Audit Team identified multiple findings regarding the operation and maintenance of SMPs. Observations from each site visit are presented below and referenced photographs are presented in Attachment 2.

Wet pond near the Intersection of Nanticoke Drive and Highway 26 in Endicott, NY –

The wet pond was located on the west side of Highway 26 and adjacent to Nanticoke Creek in Endicott, NY (see Attachment 2, Photograph 1). The wet pond contained an inlet pipe that carried stormwater from Highway 26 into the pond (see Attachment 2, Photograph 2). The wet pond also contained a square concrete outlet structure that held and then discharged flow from the pond through an outlet to Nanticoke Creek (see Attachment 2, Photographs 3, 4, and 5). Overgrown vegetation was observed in and surrounding the wet pond and it appeared to the EPA Audit Team that the pond had not recently been maintained. The “NYSDOT Region 9 Post-Construction SMPs - Broome and Tioga Counties” inventory (hereinafter, SMP Inventory, see Appendix F, Exhibit 6) states that the wet pond came “online” in 2010. NYSDOT staff were unsure if it had been inspected to ensure proper operation and maintenance since that time.

Dry swale near the intersection of Fallon Road and State Route 12 in Chenango, NY –

The dry swale was located on the west side of State Route 12 in Chenango, NY and had been installed in 2010 as part of a road widening project (see Attachment 2, Photographs 6, 7 and 9). NYSDOT staff stated that a wetland protective buffer was located across State Route 12 from the dry swale and that the dry swale contained a protective turtle crossing structure to allow turtles to cross from the dry swale to the wetland (see Attachment 2, Photograph 8). NYSDOT staff further stated that the SMP had been installed primarily for water quality treatment since minimal impervious area drained to

the dry swale, but that the dry swale had been sized to accept runoff from a large upgradient area not owned by NYSDOT. NYSDOT staff explained that the SMP had been designed with a six-inch underdrain. It was not apparent to the EPA Audit Team that the dry swale had been recently maintained, and NYSDOT staff stated that NYSDOT had decreased mowing efforts due to recent funding shortages (see Attachment 2, Photographs 6 and 7). NYSDOT explained that mowing responsibilities will most likely fall on the county or adjacent cities.

Sand filter near the intersection of Oak Hill Road and State Route 12 in Chenango, NY –

The sand filter, which consisted of fine stone covering a sand filter media with drain pipes, was located on the east side of State Route 12 in Chenango, NY and adjacent to Kattell Creek (see Attachment 2, Photographs 10 through 13). NYSDOT staff stated that the SMP had been designed in 2008 as a part of a bridge replacement project that was connected to the road widening project described above. They added that this particular aspect of the project had not disturbed enough area to require an SMP, but the sand filter had been included due to stormwater from State Route 12 discharging directly to the adjacent stream. It appeared to the EPA Audit Team that the SMP was in need of maintenance on the check dam and berm of the sand filter. NYSDOT staff stated that maintenance had not recently been conducted on the SMP.

2.4.2 NYSDOT did not have a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing mechanisms for construction projects on NYSDOT property.

Part VIII.A.5.a.iii of the Permit requires NYSDOT to develop the following:

a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing mechanisms for construction projects that occur on property owned by the covered entity or with the maintenance jurisdiction of the MS4.

The EPA Audit Team formally requested a “Written directive from person authorized to sign NOI stating regulatory mechanisms must be used and describing positions responsible for compliance” (EPA Records Request Item No. 42); however, in the NYSDOT Response Inventory, NYSDOT responded that the document was “Not available.” Further, NYSDOT staff did not provide the written directive during the audit.

2.4.3 NYSDOT had not established and maintained an inventory of stormwater management practices that included the minimum information required by the Permit.

Part VIII.A.5.a.v of the Permit requires NYSDOT to

establish and maintain an inventory of post-construction stormwater management practices to include at a minimum practices discharging to the small MS4 that have been installed since March 10, 2003, those owned by the small MS4, and those found to cause water quality standard violations...the inventory shall include, at a minimum: location of practice (street address or coordinates); type of practice; maintenance needed per the NYS Stormwater Design Manual, SWPPP, or other provided information; and dates and type of maintenance performed.

Section V.2.a of the NYSDOT SWMP Plan explains that NYSDOT’s statewide “Stormwater Management Practice Database” was modeled after a database created by NYSDOT Region 8, and that the database contains information regarding permanent SMPs constructed by NYSDOT or under the maintenance jurisdiction of NYSDOT. Section V.2.a of the NYSDOT SWMP Plan further explains that a “Stormwater Facility Activation and Inventory Form” was created to allow the transfer of information about the SMP from the NYSDOT design group to construction and then to maintenance for addition to the database. NYSDOT staff stated that NYSDOT Region 9 was not using the statewide database and forms to track SMPs within its jurisdiction.

The EPA Audit Team formally requested a “Map/inventory of post-construction storm water management practices within the DOT’s jurisdiction” (EPA Records Request Item No. 44). In response, NYSDOT provided the EPA Audit Team with a document titled “NYSDOT Region 9 Post-Construction SMPs - Broome and Tioga Counties.” The SMP Inventory included the location of and type of the SMPs, but did not include the following: (1) maintenance needed per the *NYS Stormwater Design Manual*, SWPPP, or other maintenance information; and (2) dates and type of maintenance performed.

2.4.4 NYSDOT had not developed a formal method of assessment to ensure stormwater management practices are performing properly.

Part VIII.A.5.a.vi of the Permit requires NYSDOT to do the following:

Develop (for newly authorized MS4s), implement, and enforce a program that...ensures adequate long-term operation and maintenance of management practices by trained staff, **including assessment to ensure that practices are performing properly** [emphasis added].

The NYSDOT CEC explained that completed stormwater management practices are inspected by the EIC at construction sites during implementation, but that EICs had not received formal training on inspecting SMPs for proper installation. The NYSDOT CEC additionally stated that specific tests for assessing the proper installation of the SMPs were not conducted, and that the as-built assessment was primarily based on visual observation. The NYSDOT Design Engineer stated that he would be consulted if the EIC or the NYSDOT CEC suspected that an SMP had been improperly installed. NYSDOT staff stated that NYSDOT had not developed and implemented a specific form to document that an SMP was properly installed.

2.4.5 NYSDOT had not performed maintenance on stormwater management practices.

Part VIII.A.5.a.vii of the Permit requires NYSDOT to do the following:

Develop (for newly authorized MS4s), implement, and enforce a program that...**ensures adequate long-term operation and maintenance of management practices** [emphasis added] by trained staff, including assessment to ensure that practices are performing properly. The assessment shall include inspection items identified in the maintenance requirements (NYS Storm Water Management Design Manual, SWPPP, or other maintenance information) for the practice.

Pursuant to this requirement, Chapter V of the NYSDOT SWMP Plan lists multiple documents that contain post-construction maintenance guidelines and required maintenance frequencies. For example, the *Highway Maintenance Guidelines* (see

Appendix F, Exhibit 7) states as a goal in Chapter 6, Section 6.5500, “Stormwater Management Facilities should be cleaned of sediment and debris and associated pollutants whenever accumulations would interfere with the proper functioning of the system.” Chapter 6, Section 6.5300 of the *Highway Maintenance Guidelines* additionally states, “Stormwater management ponds should be inspected annually for sediment and debris...[i]nfiltration trenches, basins and bioretention facilities should be monitored periodically during rain events.”

The EPA Audit Team formally requested “Records of inspections of post-construction storm water management practices (most recent Reporting Year)” (EPA Records Request Item No. 46) and “Records of maintenance for post-construction storm water management practices (most recent Reporting Year)” (EPA Records Request Item No. 47); however, NYSDOT did not provide the requested records.

NYSDOT staff explained that once the as-built inspection is conducted on a site, maintenance responsibility is transferred from the EIC to the NYSDOT Maintenance Division. The NYSDOT CEC explained that SMPs implemented at construction sites are documented within the site’s SWPPP and construction specifications. He added that these documents should include the appropriate information to be transferred to the Maintenance Division upon completion of a project; however, a formal process was not in place. General protocols and frequencies for inspecting installed SMPs had not been developed. The NYSDOT MEC explained that ensuring the proper operation and maintenance of SMPs would eventually be his responsibility, but that this process was still in development and was a goal for the future. The NYSDOT design staff explained that once construction is complete, they do not conduct additional follow-up inspections to ensure the continued operation of SMPs.

NYSDOT staff indicated that SMPs located at NYSDOT facilities should be managed by the facility engineer and maintained by the Maintenance Division. NYSDOT did not provide records indicating that maintenance had been conducted on SMPs located at NYSDOT facilities.

NYSDOT staff stated that maintenance had not occurred on SMPs implemented since 2009, other than those located at NYSDOT facilities. Observations associated with site visits conducted at three SMP sites are included in Section 2.4.1 above and photographs from the site visits are located in Attachment 2. The site visit observations generally reflect the lack of maintenance performed on SMPs.

2.4.6 NYSDOT had not trained staff to ensure adequate long-term operation and maintenance of management practices.

Part VIII.A.5.a.vi of the Permit requires NYSDOT to do the following:

Develop (for newly authorized MS4s), implement, and enforce a program that...**ensures adequate long-term operation and maintenance of management practices by trained staff** [emphasis added], including assessment to ensure that practices are performing properly. The assessment shall include inspection items identified in the maintenance requirements (NYS Storm Water Management Design Manual, SWPPP, or other maintenance information) for the practice.

The EPA Audit Team formally requested “Documentation of training for DOT staff that conduct post-construction storm water management practice inspections and maintenance” (EPA Records Request Item No. 48). During the audit, NYSDOT provided slides from a NYSDEC 4-hour Better Construction Site Management training (see Appendix D, Exhibit 8); however, NYSDOT did not provide records of attendance or other documentation associated with the training. Upon review of the provided training slides, the EPA Audit Team noted that only a small portion of the training was devoted to SMPs, and the content did not provide in-depth operation and maintenance instruction. In addition, NYSDOT staff stated that they were not aware of training conducted specifically for NYSDOT employees who perform inspection and maintenance activities for SMPs, but that some staff had received training on SMPs about two and a half years prior to the audit.

2.4.7 NYSDOT is subject to additional Permit requirements for program implementation.

The EPA Audit Team did not comprehensively evaluate all Permit requirements within the Post-Construction Stormwater Management MCM. In addition to the Permit requirements identified in the findings above, NYSDOT is subject to the following Permit requirements not directly associated with findings in this report.

- Part VIII.A.5.a.iv of the Permit requires NYSDOT to include “a combination of structural or non-structural management practices (according to standards defined in the most current version of the NYS Stormwater Management Design Manual) that will reduce the discharge of pollutants to MEP.”
- Part VIII.A.5.b of the Permit requires NYSDOT to “[d]evelop (for newly authorized MS4s), implement, and provide adequate resources for a program to inspect development and re-development sites by trained staff and to enforce and employ sanctions.”
- Part VIII.A.5.c of the Permit requires NYSDOT to “[d]evelop (for newly authorized MS4s), record, annually assess and modify as needed measurable goals.”
- Part VIII.A.5.d of the Permit requires NYSDOT to “[s]elect and implement appropriate post-construction stormwater BMPs and measurable goals to ensure the reduction of all pollutants of concern (POCs) in stormwater discharges to the MEP.”

Section 2.5 Pollution Prevention / Good Housekeeping for Municipal Operations

Part VIII.A.6.a of the Permit requires NYSDOT to develop and implement a pollution prevention / good housekeeping program for municipal operations and facilities that satisfies the requirements at Part VIII.A.6.a–e of the Permit.

Part VIII.A.6.a.i of the Permit specifies that NYSDOT’s program for pollution prevention/good housekeeping must address:

Municipal operations and facilities that contribute or potentially contribute POCs [pollutants of concern] to the small MS4 system. The operations and facilities may include, but are not limited to: street and bridge maintenance; winter road maintenance; stormwater system maintenance; vehicle and fleet maintenance; park and open space maintenance; municipal building maintenance; solid waste management; new construction and land disturbances; right-of-way maintenance; marine operations; hydrologic habitat modification; or other.

2.5.1 NYSDOT had not performed and documented a self-assessment of all municipal operations and facilities.

Part VIII.A.6.a.ii of the Permit requires NYSDOT’s program to include the following:

performance and documentation of a self assessment of all municipal operations to determine the sources of pollutants potentially generated by the covered entity’s operations and facilities, and identify the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program.

The NYSDOT SWMP Plan does not specifically address the requirement for conducting self-assessments of NYSDOT facilities. During on-site discussions, the NYSDOT MEC explained that NYSDOT had not performed self-assessments of NYSDOT facilities specifically for stormwater purposes.

The EPA Audit Team formally requested documentation of self-assessments of all NYSDOT operations and facilities for the current Permit term (EPA Records Request Item No. 21); however, NYSDOT did not provide the requested information. In response, NYSDOT provided the “Spill Prevention, Control, and Countermeasure Plan” and “Spill Prevention Report” for the Broome County Region 9 Equipment Maintenance Facility. In addition, the EPA Audit Team requested records of NYSDOT facility inspections conducted for stormwater purposes for the most recent reporting year, (EPA Records Request Item No. 22); however, in the NYSDOT Response Inventory, NYSDOT responded that the document was “Not available” ([see Appendix E, Item No. 22](#)).

During the audit, NYSDOT staff explained that self-assessments had not been conducted of their facilities. The EPA Audit Team visited two residencies (Tioga and Broome) and the Vestal Waste Storage Yard; self-assessments had not been conducted at any of the sites visited.

In summary, NYSDOT had not conducted self-assessments to identify and reassess the municipal operations and facilities that should be addressed by the pollution prevention and good housekeeping program as required by Part VIII.A.6.a.ii of the Permit.

2.5.2 NYSDOT had not developed or implemented an adequate pollution prevention/good housekeeping training program.

Part VIII.A.6.a.vi of the Permit requires NYSDOT's program to include the following:

an employee pollution prevention and good housekeeping training program and ensure that staff receive and utilize training.

The NYSDOT SWMP Plan does not specifically address this requirement to develop and implement a pollution prevention/good housekeeping training program.

The EPA Audit Team formally requested NYSDOT's employee/maintenance personnel training plan, records, and syllabus pertaining to pollution prevention/good housekeeping for the most recent reporting year (EPA Records Request Item No. 27); however, in the NYSDOT Response Inventory, NYSDOT responded that the documentation was "Not available" ([see Appendix E, Item No. 27](#)).

During the audit, NYSDOT staff described the various training activities that had been conducted on topics including erosion and sediment control, outfall inspections, and construction general permit requirements. Because the staff member involved in implementing and recording the training was not able to attend, the NYSDOT staff were not able to provide documentation of training or attendance records.

In a follow-up conference call with NYSDOT staff on July 17, 2012, the EPA Audit Team asked for additional training material and records that were not provided during the audit. In response, NYSDOT staff provided documentation of a NYSDEC-endorsed 4-hour "Erosion and Sediment Control Training," with the most recent training having been conducted June 9, 2011. These trainings were only provided for NYSDOT senior management-level staff, and the training was primarily focused on erosion and sediment control rather than stormwater pollution prevention and good housekeeping. In addition, NYSDOT staff explained that no such training exists for staff working at the residencies or other fixed facilities.

Through on-site discussions during operations and maintenance facility inspections conducted during the audit, the EPA Audit Team observed a low level of stormwater awareness amongst NYSDOT staff.

In summary, NYSDOT did not demonstrate to the EPA Audit Team that it had developed a structured program for pollution prevention and good housekeeping training activities. Specifically, the program should include established schedules and frequencies for training activities, identification of staff or positions that require training, procedures for documenting and tracking training activities, and measurable goals for assessing the implementation of the training program.

2.5.3 NYSDOT had not developed or implemented SWPPPs for its operation and maintenance facilities.

Part VIII.A.6.a of the MS4 Permit requires that a pollution prevention/good housekeeping program be developed for all operations and facilities that contribute or potentially

contribute pollutants of concern. For each municipal operation and facility, the MS4 must conduct a self-assessment to determine the potential pollutants generated and their sources (Part VIII.A.6.a.ii); determine management practices, policies, procedures etc...that will be developed and implemented to reduce or prevent the discharge of potential pollutants at that facility or operation (Part VIII.A.6.a.iii); and, select and implement site specific pollution prevention and good housekeeping BMPs to ensure the reduction of all pollutants identified in the self-assessment to the maximum extent practicable (Part VIII.A.6.d). The MS4 permit references the “NYS Pollution Prevention & Good Housekeeping Assistance document” or other guidance materials available from the EPA, the State or other organizations (Part VIII.A.6.a.iii).

Highway maintenance facilities include vehicle and equipment maintenance shops (vehicle and equipment rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations, and salt storage for road deicing activities that have the potential to generate pollutions that need to be included in the pollution prevention/good housekeeping program developed for that facility. The SPDES Multi-Sector General Permit (GP-0-12-001) (Sectors P & AE) contains appropriate BMPs that address these types of activities. This document can be used as a guide in development of an appropriate pollution prevention/good housekeeping program for these types of facilities. Sector AE requires permit coverage for facilities that have been notified by NYSDOT to seek coverage. NYSDOT operation and maintenance facilities have not been notified that MS4 coverage is required. However, NYSDOT facilities are still subject to the requirements of the MS4 permit (Parts VIII.A.6.a.ii, VIII.A.6.a.iii and VIII.A.6.d) which require development and implementation of a pollution prevention / good housekeeping program addressing specific elements.

During the inspection of multiple NYSDOT operation and maintenance facilities conducted as a component of the audit, the EPA Audit Team noted that site specific pollution prevention/good housekeeping programs had not been developed or implemented for the facilities. Further, the Statewide Stormwater Program Coordinator stated that site specific plans had not been developed or implemented for NYSDOT facilities statewide. Specific facility observations are further discussed below in Section 2.4.4; individual site visit write-ups are included as Appendix H.

The EPA Audit Team formally requested an example of a NYSDOT facility plan. In response, NYSDOT provided its “Spill Prevention, Control, and Countermeasure (SPCC) Plan Development” template, instructions, and guidance documents (see NYSDOT Response Inventory, Appendix E, Item No. 22). The SPCC plans provided contained information regarding spills, but did not include facility-specific stormwater BMPs as required by Part VIII.A.6.a.i thru iii and Part VIII.A.6.d.

NYSDOT’s *Environmental Handbook for Transportation Operations* (hereinafter, Handbook) specifies general procedures to be followed for a subset of potential sources of pollution from their facilities; however, the information is generic, did not provide

adequate procedures to prevent the discharge of certain pollutants, and did not cover all potential sources of pollutants (i.e., handling and storage of scrap metal).

In summary, neither NYSDOT's SPCC Plan nor the Handbook meet the requirements outlined in Part VIII.6 of the MS4 General Permit.

2.5.4 Deficiencies were noted during inspections of NYSDOT residencies and fixed facilities conducted as a component of the audit.

Part VIII.A.6.d of the Permit requires NYSDOT to do the following:

select and implement appropriate pollution prevention and good housekeeping BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

On June 19–21, 2012, the EPA Audit Team, along with NYSDOT staff, visited several NYSDOT residencies and fixed facilities. The primary purpose of the facility site visits was to document site conditions and to assess NYSDOT pollution prevention and good housekeeping activities performed for the facilities. During the site visits, the EPA Audit Team walked the facilities with NYSDOT representatives.

The following facilities were visited during the audit:

- Vestal Waste Storage Yard – Broome County.
- Tioga Residency (9-8) – Tioga County.
- Broome Residency (9-1) – Barlow Road Facility.

The EPA Audit Team identified multiple findings regarding pollution prevention and good housekeeping for the facilities. Detailed observations and photographs from the facility inspections are presented in individual site visit reports included as [Appendix H](#). A summary of observations from each facility site visit is included below.

Vestal Waste Storage Yard – The primary activities conducted at the Vestal Waste Storage Yard were storing soils/aggregate/sweepings/millings stockpiles, tree/vegetation debris, and composting deer remains. The facility is unmanned and is subject to frequent flooding (completely washed out in 2006 and 2011) from Patterson Creek located immediately east of the yard. NYSDOT staff explained that stormwater runoff from the yard is primarily conveyed to Patterson Creek. Stormwater inspections had not been conducted at the facility. The facility does not appear to be subject to the Industrial General Permit requirements for the development and implementation of a SWPPP. Physical issues noted during the site visit include the following:

1. Piles of materials collected during street sweeping, stockpiles of bulk materials, and piles of soil containing animal remains were stored uncovered and without containment.

Tioga Residency (9-8) – The primary activities conducted at the Tioga Residency consisted of vehicle/equipment washing, storage, repair, and fueling, and snow removal

and de-icing operations. The facility comprises multiple buildings (e.g., office/vehicle maintenance building, equipment/material storage buildings, and a salt shed) and is located adjacent to Owego Creek. Based on mapping conducted by the EPA Audit Team the Facility appeared to be located within the urbanized area; however, mapping provided by NYSDOT displayed the Facility to be outside of the urbanized area. The facility appeared to be subject to MSGP requirements for the development and implementation of a SWPPP; however, NYSDOT has not developed or implemented a SWPPP for the facility. Additionally, formal stormwater or self-assessment inspections had not been conducted at the facility. Physical issues noted during the site visit include the following:

1. Visible rust staining and petroleum product staining was observed on the impervious surface underneath salt spreader equipment and near storm drain inlets.
2. Discolored water accumulation was observed in standing water located adjacent to the maintenance garage.
3. Multiple petroleum product stains were observed on the impervious ground surface adjacent to road maintenance equipment and vehicles.
4. Two large petroleum product stains were observed on the ground surface and close to a drainage way to Owego Creek.
5. Two rusty paint containers were stored in an outside area without coverage or secondary containment.
6. A large stain from an unknown substance was observed leading from the rusty paint containers to the perimeter fence and offsite toward a drainage way to Owego Creek.
7. An uncontained and uncovered scrap metal pile was observed.
8. An uncovered scrap metal container containing petroleum product appeared to be leaking onto the impervious surface underneath the container.
9. BMPs were not implemented to contain salt stored in the salt shed or to prevent discharge of salt during loading/unloading operations upgradient of the drainage way to Owego Creek.
10. The lid was open on a dumpster containing scrap tires and other wastes.

Broome Residency (9-1) – Barlow Road Facility – The primary activities conducted at the Broome Residency included vehicle/equipment storage and maintenance, material storage (i.e., millings, road painting equipment), and petroleum filling and bulk storage. The residency also includes the Bridge Crew Facility on the north side of Barlow Road. The Bridge Crew Facility is primarily used for bridge maintenance and contains bridge equipment/material storage buildings, a staging area, a materials stockpile (e.g., dirt), a scrap metal stockpile, and a salt shed. The residency is located adjacent to Stratton Mill Creek, a tributary to the Susquehanna River.

Formal stormwater inspections had not been documented at the facility. Stormwater-related training had not been conducted for facility personnel. NYSDOT has not developed or implemented a SWPPP for the facility, and the facility appears to be subject

to MSGP requirements for the development and implementation of a SWPPP. Physical issues noted during the site visit include the following:

1. Visible petroleum product staining was observed on an impervious surface.
2. Paint was spilled on the ground surface adjacent to a drainage ditch.
3. Millings stockpiles were stored directly adjacent to a creek.
4. Scrap metal and other parts were stored on an impervious surface without overhead coverage or containment.

2.5.5 NYSDOT is subject to additional Permit requirements for program implementation.

The EPA Audit Team did not comprehensively evaluate all Permit requirements within the Pollution Prevention / Good Housekeeping for Municipal Operations MCM. In addition to the Permit requirements identified in the findings above, NYSDOT is subject to the following Permit requirements not directly associated with findings in this report.

- Part VIII.A.6.a.iii of the Permit requires NYSDOT to develop and implement a program that “determines management practices, policies, procedures, etc. that will be developed and implemented to reduce or prevent the discharge of (potential) pollutants. Refer to management practices identified in the ‘NYS Pollution Prevention and Good Housekeeping Assistance Document’ or other guidance materials available from the EPA, the State, or other organizations.”
- Part VIII.A.6.a.iv of the Permit requires NYSDOT to develop and implement a program that “prioritizes pollution prevention and good housekeeping efforts based on geographic area, potential to improve water quality, facilities or operations most in need of modification or improvement, and covered entity’s capabilities.”
- Part VIII.A.6.a.v of the Permit requires NYSDOT to develop and implement a program that “addresses pollution prevention and good housekeeping priorities.”
- Part VIII.A.6.a.vii of the Permit specifies that NYSDOT’s program for pollution prevention/good housekeeping must require “third party entities performing contracted services, including but not limited to, street sweeping, snow removal, lawn / grounds care, etc., to make the necessary certification in Part IV.G [of the Permit].”
- Part VIII.A.6.b of the Permit requires NYSDOT to “consider and incorporate cost effective runoff reduction techniques and green infrastructure in the routine upgrade of the existing stormwater conveyance systems and municipal properties to the MEP.”
- Part VIII.A.6.c of the Permit requires NYSDOT to “develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals.”

- Part VIII.A.6.e of the Permit requires NYSDOT to “adopt techniques to reduce the use of fertilizers, pesticides, and herbicides, as well as potential impact to surface water.”